

AMENDMENTS TO THE SPECIFICATION

Please replace paragraphs [0016], [0017], [0025] and [Abstract of Disclosure] with the following amended paragraphs:

5 [0016] Please refer to Fig.3. Fig.3 is a block diagram of the acoustic signal input device 22 of the hearing aid device 20. The acoustic signal input device 22 comprises an acoustic signal input and an amplifying element array 30. The amplifying element array 30 comprises a plurality of bandpass filters 10 32, each of which is connected to a plurality of amplifying elements M11-M44. The bandpass filters 32 filter incoming acoustic signals into distinct frequency ranges and convert the acoustic signal into an electrical signal, thereby creating a channel that carries electrical signals that fall 15 within distinct frequency range. The amplifying elements amplify the electrical signals passed by the bandpass filters 32. A first bandpass filter f1 passes acoustic signals with a frequency between 800 and 1200 Hz. A second bandpass filter f2 passes acoustic signals with a frequency between 1200 and 20 2000 Hz. A third bandpass filter f3 passes acoustic signals with a frequency between 2000 and 2800 Hz. A fourth bandpass filter f4 passes acoustic signals with a frequency between 2800 and 3500 Hz. Each channel has a separate electrical output of the acoustic signal input device. The amplifying element 25 array 30 shown in Fig.3 and used as an example in this specification comprises channels, but it should be understood that the present invention is not limited to four channels, nor is the present invention limited to the frequency ranges given in the example.

30 [0017] Please refer to Fig.4. Fig.4 is a block diagram of the acoustic signal output device 26 of the hearing aid 20. The acoustic signal output device 26 comprises an amplifying element array 40 and a plurality of signal inputs 35 corresponding to different channels for receiving signals

from the amplifier 24. A first channel f'1 carries signals with frequencies between 800 and 1200 Hz. A second channel f'2 carries signals with frequencies between 1200 and 2000 Hz. A third channel f'3 carries signals with frequencies between 2000 and 2800 Hz. A fourth channel f'4 carries signals with frequencies between 2800 and 3500 Hz. The amplification element array can be set to adjust the amplification level at which the signals in each channel is amplified. The level of amplification of each channel is independent from the level of amplification of the other channels. After the signals are amplified, they are converted back into an audible sound and played out of the acoustic signal output device. The ~~amplification~~ amplifying element array 40 shown in Fig.4 and used as an example in this specification comprises four channels, but it should be understood that the present invention is not limited to four channels, nor is the present invention limited to the frequency ranges given in the example.

~~[0025] Due to the small scale of the hearing aid device 20 of the present invention,~~
 Compared to the prior art hearing aid 10, the hearing aid 20 of the present invention can separate input acoustic signal into several distinct frequency ranges. By separating input acoustic signal into several frequency ranges, the wearer of the hearing aid 20 according to the present invention can customize the settings of the hearing aid 20 to correspond to the wearer's individual impairment. The present invention allows the wearer to adjust the amplification level of the hearing aid 20 to compensate for the wearer's level hearing loss. The present invention also allows the wearer to set different amplification levels for each frequency range so as to only amplify the frequency ranges at which the wearer experiences difficulty with hearing.

[Abstract of Disclosure] A hearing aid device includes a ~~microphone~~ acoustic signal input device, an

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5 amplifier, and ~~a speaker~~ an acoustic signal output device. The microphone has bandpass filters, which separate incoming acoustic signals into a multiple channels. Both the microphone and the speaker have a series of amplifying elements, each with a different amplification level. By choosing which amplifying elements to switch on in the microphone and the speaker, the wearer of the hearing aid device may adjust for different amplification levels in each channel.

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